BRIEF COMMUNICATIONS

Comparison of journal title coverage between CINAHL and Scopus

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INTRODUCTION

This study compares the journal source coverage of CINAHL, the Cumulative Index to Nursing and Allied Health Literature, and Scopus to determine whether Scopus alone provides a thorough search of the nursing and allied health literature. Scopus is a relative newcomer to the world of online indexes covering the medical and scientific literature. Its total coverage of more than 23,700 sources is multidisciplinary and includes non-journal types—such as conference papers, book series, and trade publications—that are not covered by MEDLINE/PubMed or CINAHL. However, according to the publisher, Scopus indexes all of the MEDLINE and EMBASE/Excerpta Medica journals and therefore can be a useful alternative to searching those databases independently. The question then arises: how complete is its coverage of nursing and allied health literature? If it also indexes a large percentage of that literature, Scopus could be a viable integrated search engine for all medical, nursing, and allied health searching needs. This information could help health sciences libraries make wise acquisition decisions.

A number of articles have analyzed the coverage of journals in Scopus with specific emphasis on its citation tracking ability, compared to Web of Science [1–3]. The study by de Moya-Anagón et al. [4] provided a comprehensive analysis of Scopus compared to the *Ulrich's International Periodicals Directory* list of available journals in all fields and calculated a percentage of Scopus's coverage by subject category. Gavel and Iselid's study [5] not only looked at the citation database Web of Science, but also studied the coverage overlap of various science, technology, and medicine (STM) databases. However, Gavel and Iselid did not include CINAHL among the comparison databases, and *Ulrich's* does not have separate subject categories for nursing or many of the allied health subjects such as occupational or physical therapy. No studies have focused specifically on the coverage of nursing and allied health literature in Scopus. Therefore, this brief analysis attempts to fill that gap and provide some data to determine whether Scopus could be an alternative to CINAHL.

METHODS

The published list of 23,749 sources for Scopus citations was downloaded from the publisher's website in October of 2008. No attempt was made to separate journals from non-journal sources such as books series and conference proceedings. The list of 2,943 sources for CINAHL was also downloaded from the CINAHL website during the same time frame. CINAHL's published list included formats categorized as academic journal, magazine, newspaper, or trade publication. It did not reflect indexed formats such as dissertations or drug monographs. The two lists were compared manually to determine how many of the CINAHL titles were also included in the Scopus list. The comparison was made using the source title alone, unless there was some question, and then the international standard serial number (ISSN) was checked to resolve the issue. No attempt was made to evaluate the extent of the coverage of each title in either database.

Once the titles unique to CINAHL were identified, the question arose: Are these unique titles significant in the sense that they should not be overlooked in conducting a thorough search of the nursing and allied health literature? Because one measure of a journal's significance is peer review, the titles unique to CINAHL were then analyzed to determine how many were peer reviewed.

RESULTS

This analysis of Scopus and CINAHL indicated that 1,723 of the listed titles were included in both databases. Results for each database are presented in Table 1. The table format and the specific measures presented do not completely mirror those in Gavel and Iselid's 2008 study of other STM subject databases but are simplified to focus specifically on the questions of interest in this study.

As Gavel and Iselid indicate, Gluck's [6] analysis of journal coverage overlap defines different methods of calculating overlap. Traditional overlap is the intersection (journal titles covered in both databases) divided by the union (journal titles covered in either database, i.e. eliminating the duplicates). In this case, the calculation (1,723 divided by 24,969) gives a traditional overlap of 6.9%, but that measure is hardly illustrative given the relative sizes of the 2 databases. Gluck also defines 2-way relative overlap as the intersection divided by the total number of items in 1 database. Because this study is primarily interested in the extent to which Scopus overlaps with the coverage of CINAHL, the more interesting of the 2 figures given in Table 1 is the 58.5% relative overlap of CINAHL titles in Scopus. That calculation was made by dividing the intersection of the 2 lists (1,723) by the total number of items in CINAHL (2,943). In other words, 58.5% of the titles in CINAHL are also included in Scopus and the remaining 41.5% (1,220) are unique.

A further examination of the 1,220 unique titles in CINAHL's title list indicated that 466 of them or 38.9% are peer reviewed. These 466 titles represented 15.8% of the total number of titles covered by CINAHL. Presumably, these titles would be the most significant sources of journal literature that would be

Table 1
Comparison of source titles in Scopus and CINAHL

Database	Total number of journal titles indexed	Number of unique journal titles	Relative overlap*
Scopus	23,749	22,026	7.2%
CINAHL	2,943	1,220	58.5%

* Percentage of journal titles in this database also indexed in the other database.

undiscovered if a search were done in Scopus without also consulting CINAHL.

LIMITS OF THE STUDY

Both the SCOPUS and the CINAHL source lists contained unique types of publications, such as books series in Scopus and newspapers in CINAHL, and excluded other formats, such as dissertations that are a valuable part of the CINAHL coverage. So there may be additional important CINAHL sources that are not included in SCOPUS. No attempt was made to ''clean up'' the title lists as was done in the Gavel and Iselid study, who made a significant effort to eliminate any titles that were no longer being actively indexed, so the total number of titles in Scopus might be overstated. It is also recognized that databases covering the same title might differ in the depth and consistency of that coverage [7], but this study did not adjust its findings on that basis. Therefore, while this approach, as intended, provided an accurate account of the number of unique serial titles in CINAHL and thus the number of titles that would be missed by only searching Scopus, it only roughly estimated the degree of overlap between these two sources.

DISCUSSION

This analysis shows a significant overlap of journal titles indexed in Scopus and CINAHL, but it is not nearly as large as the overlap between Scopus and MEDLINE or EMBASE/Excerpta Medica or even as large as the overlap with PsycINFO, as shown in the Gavel and Iselid study [5]. Also, more than a third of the titles covered by CINAHL but not by Scopus are significant, at least to the extent that they are peer reviewed.

A further question remains regarding how many sources unique to Scopus cover literature in the nursing and allied health subject areas that would not be discovered by a search of CINAHL alone. The comparison of Scopus titles to *Ulrich's* list by de Moya-Anegón et al. [4] did not answer the question because *Ulrich's* subject categories do not adequately identify nursing and allied health journals. The Scopus source list provided subject classification of the titles at several different levels, and at the broadest level of the Scopus classification, ''Health Sciences'' was the obvious subject under which one might expect most of the nursing and allied health titles to fall. However, a partial check of the overlapping CINAHL titles revealed that titles in the ''Social Sciences'' and even ''Physical Sciences'' subjects were also well represented. Checking the first sublevel of classification in the Scopus list revealed that the subject ''Nursing and Health Professions'' was used to classify overlapping CINAHL titles, but ''Psychology,'' ''Social Sciences,'' and several other less obvious subjects (e.g., ''Neurosciences'' and even ''Mathematics'') were also used. Therefore, it was difficult to identify a subset of titles in Scopus that would reasonably be seen as a correlate of the literature covered in CINAHL.

Scopus can only partially duplicate the coverage of nursing and allied health literature offered by CINAHL. While its significantly larger coverage may offer many unique titles in the nursing and allied health subject areas, it is not possible from this study to say that these titles would be an adequate substitute for CINAHL's coverage of this literature.

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